Tue, 8 October 2024
Weekly Newsletter

DVN Lighting

NEWSLETTER #874

Editorial

Watching The Magic At EDAG Wolfsburg

T. Giesen (L), G. Bahnmüller (C), J. Buthmann (R)

EDAG's new goniometer

DVN was invited to the grand opening of EDAG's new light tunnel at their Warmenau site near Wolfsburg. That's the development centre where EDAG in 2016 gathered all 1,150 employees, who were previously scattered across various locations in and around Wolfsburg. The facility has ample space, an excellent canteen, and even a fitness room.

The lighting technology group, founded at EDAG in 2022 and now comprising more than 70 employees, now has a brand-new 25-metre lighting tunnel at the Wolfsburg headquarters. Team leaders Tibor Giesen and Jannes Buthmann proudly presented the new LMT goniometer, which, by dint of newly-designed mechanics and robotics, can hold and accurately measure large components such as 2-metre-long front and rear panels.

The highlight of the day was a ride in their state-of-the-art driving simulator, which simulates a real-life environment and also can apply lateral forces to the driver during simulated motorway driving, providing a very realistic driving experience. The aim is to use this equipment in the future to optimise and validate light distributions without the need for physical prototypes.

After an excellent lunch in the attractively-designed canteen, the two-day Lighting Technology Tech Day began, which was attended by all the lighting technology staff from the various locations. In addition to internal presentations, DVN and companies Reichle, LMT, and Ansys also participated with interesting contributions.

We've just published our **quarterly report** covering the lighting systems on newly-launched vehicles, and if you've not yet registered for the VISION congress, hurry and do so; the event is next week, so time is running out!

Gerd Bahnmüller, DVN Senior Adviser

In Depth Lighting Technology

DVN Field Trip: Lighting Days at EDAG

By Gerd Bahnmüller, DVN Senior Adviser

The EDAG Group, headquartered in Wiesbaden, Germany, is an independent engineering services provider. Drawing on more than 50 years' experience, EDAG's proprietary 360-degree development approach has become a hallmark of quality in the holistic development of vehicles and smart factories. With an interdisciplinary team of around 8,900 experts, and a global network of some 70 branches, EDAG develop mobility and industrial solutions for customers including the world's leading automotive and non-automotive companies.

EDAG are renowned for their ability to provide integrated services across the whole vehicle development gamut. This includes vehicle design, engineering, prototyping, and production support. They excel in offering solutions that cover all technical aspects of automotive development, such as body engineering, interior and exterior design, electrification, and safety systems. EDAG's expertise also extends to digitalization, where they support the transition towards more efficient, automated, and connected production systems in automotive manufacturing.

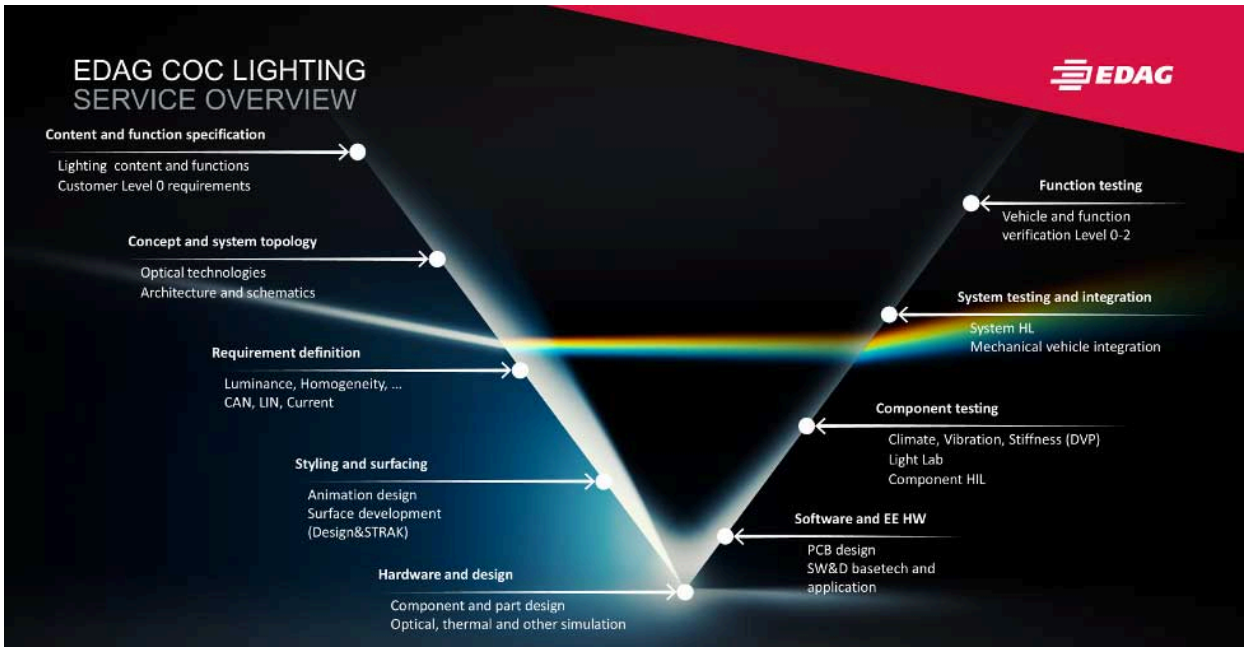
EDAG have been at the forefront of innovations in lightweight construction and multi-material designs, helping manufacturers meet increasing demands and requirements for fuel efficiency and emissions reduction. Their proficiency in EV technology and battery systems development places them centrally in the shift toward sustainable mobility.

Vehicle lighting technology

With this extensive expertise in the automotive sector, it was a logical step for EDAG to expand their lighting activities. Since 2022, their lighting technology team has grown from 20 to over 70 employees, based at various locations, so customers can be optimally supported. Customers are mainly automakers and tier-1s, but EDAG are working toward supporting lighting tier-2s; EDAG Body Engineering VP Michael Küpper says there is a demand in that sector for those services.

At the Warmenau site near Wolfsburg, a modern 25-metre light tunnel has been set up with the latest goniometer from LMT. All the necessary measuring equipment is on hand, including high-precision photocells and CCD cameras. The new goniometer makes it easy to handle and measure large components such as illuminated front and rear panels, even if they are 2 m wide.

EDAG's lighting services include the full range of those outlined in the V-model shown here. The company are engaged in collaborative projects with automakers and tier-1s at the early stages of vehicle development, focusing on the design and functionality of lighting systems and components. EDAG's product development team handle component ownership, offering specialized development services to support automakers and tier-1s in design, simulation, and electronic and software development. Their comprehensive validation portfolio is enhanced by test facilities conducting environmental, EMC, electrical, and system and function testing—all in-house.



Next to the light tunnel there is an innovative driving simulator specially designed to allow the cabin, mounted on an air cushion, to be moved forward, backward, left, and right by 5 m. This allows the simulator 'driver' to experience acceleration and deceleration as well as lateral forces, creating an almost realistic driving experience in the simulator. EDAG plan to use this facility in the future to optimize and validate vehicle lamps, and to optimize light distributions without physical prototypes—instead using virtual night drives in the Zero-Prototype Lab.

With all these tasks and projects, the team will surely continue to grow, and we will see many more interesting contributions from EDAG in the future. The company does not have to worry about new talent, as students can also be involved, for example through term papers and bachelor's or master's theses. This way, interesting topics can be examined, researched and further developed outside of commercial orders, which are more project- and vehicle-related.

In conjunction with the grand opening of the new light tunnel, EDAG invited partners to show how well connected EDAG are to leading companies in measurement systems (LMT), laser graining for optical systems in tooling (Reichle Technologiezentrum), optical simulation (Ansys)—and vehicle lighting information and analysis (DVN).

All in all, EDAG are an impressive, dynamic outfit, offering top-class engineering services to support the world's vehicle and component manufacturers. Their comprehensive service portfolio, cutting-edge innovations, and deep involvement in next-generation automotive technologies position them at the front of the industry's evolution toward more sustainable, connected, and intelligent mobility solutions. The company's focus on lighting, in particular, highlights their commitment to enhancing both safety and design in the vehicles of the future.

Lighting News

Blinded by the (Head)Lights

LIGHTING NEWS

ByProf. Dr.-Ing. Benedikt Lamontain ·University of Applied sciences, Department of Engineering Sciences and Industrial Design, Hochschule Magdeburg-Stendal

A few months ago, FIA (the Fédération Internationale de l'Automobile) published a glare survey, which has already been summarized in DVNewsletters. The study organized by various automobile clubs brings the topic to the fore.

In the meantime, Geoff Draper—the former GTB president with many decades' expertise in this field—gave **his personal view** on the matter. Draper mentioned glare was a topic in the very beginnings of headlighting, is still a topic, and probably will be in the future. Nevertheless, he doesn't agree with the hype of the study, nor with the results, due to the way the survey was conducted.

The European consumer study 'Glare on Road Traffic' by ADAC mentioned my research about what is evaluated and what is not according to glare in UN ECE regulations. More than 10 years later, I'm still working on this topic in my position at the Magdeburg-Stendal University of Applied Sciences. Before, I was working at IAV—responsible for lighting system verification as well as driver monitoring systems. We implemented dynamic lighting tests according to IIHS and other upcoming tests, like C-IASI and FMVSS. It's a great honour to me to give my point of view on the ongoing debate on glare and traffic safety. I'm convinced it is not a question of today's lighting systems and their potential, especially with high resolution light sources. It is much more an issue of what is and isn't evaluated according to today's regulations—an issue I already raised more than 10 years ago.

Often, people in my surroundings—mostly older ones—complain about how glaring today's headlights are. When asked about the situations in which they feel dazzled, mainly they mention situations which are not considered during the evaluation process of road illumination devices defined in ECE R149. Here are a few samples:

- Stopped at a traffic light, getting dazzled by SUV headlights via interior and exterior mirrors.
- Glare from oncoming headlamps which are not dipped down timely.
- Small headlamps with high brightness.

First, we must differentiate what kinds of glare are meant or complained about, and what kinds of glare are evaluated. There's disability and discomfort glare. Of course, both need to be considered. Looking to the regulations, we have specific criteria to control disability glare. For example, the low-beam test point B50L (0.57°U, 3.43°L), which represents the eye position of an oncoming driver 50 metres away. Why 50

metres? Based on scientific findings, the greatest reduction of the object recognition distance due to glare of an oncoming vehicle occurs at 50 metres.

The intensity limits for B50L were set long ago, in consideration of technology and performance of lighting systems at that time. Are they still valid? We must look at changes that have occurred in the meantime:

New kind of vehicles and mounting height

Thirty years ago, there weren't many SUVs on the road. Now there are; according to the IEA (International Energy Agency) in 2023 SUVs accounted for 48 per cent of worldwide sales. Looking to STATISTA, Germany is the leading market for SUVs. So it is not surprising that people do complain about new glare scenarios. Nearly every second new car has a headlamp mounting height that is probably higher than it was 30 years ago. What does this mean for disability and discomfort glare?

New light sources with high luminous flux

In the '90s, many people were concerned about glare caused by HID headlamps. A lot of studies were performed to refute these concerns. What came next? The introduction of LED light sources, which are used in headlamp applications since 2008. Since then, the LED became state of the art for headlamp applications, due to higher efficiency, styling possibilities, as well as functionalities.

Design / recognition value

Vehicle frontal desig has changed massively. Designers demand miniature headlamps. The reduced area of light output in conjunction with higher luminous flux leads to brighter headlamps. The consequence: high contrast, a trend that should be treated seriously by regulation.

ADB Systems and adaptive light distributions

New light sources enable new functionalities. Today different suppliers deliver LEDs with more than 16,000 pixels, which are individually controllable. In ADB systems they have high potential to realize a light distribution ideally adapted to each situation. A specific situation in which such systems can provide tremendous added value is in case of adverse weather conditions. Interestingly, more light is not always needed; on the contrary, in certain situations, *less* light may best ensure optimal visibility.

Of course, glare is not down to just the light source; much more must be considered. At least, the whole lighting system and the way it reacts dynamically. Therefore, dynamic lighting tests (real as well as virtual methods) like IIHS, C-IASI, HSPR, and more are promising approaches to check the real potentials for traffic safety as well as glare of today’s lighting systems.

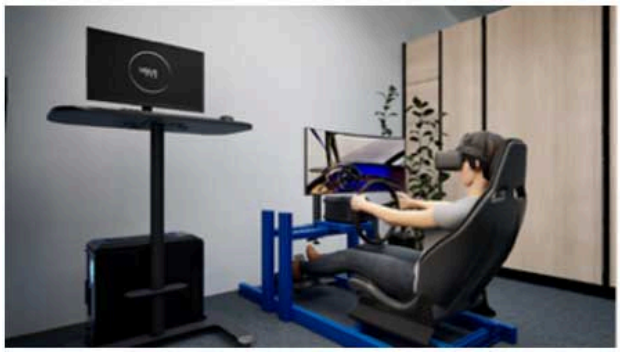
So, what should be evaluated in response to the kinds of glare complaints people make? Here's my short list:

- Lamp mounting height on increasingly-common SUVs
- Luminance of design-driven small headlamps and the resulting contrasts
- Antiglare performance of ADB systems
- Potential of high-resolution systems to reduce glare in adverse weather condition

My recommendations are to support the establishment of a task force on glare, based on the 2018 work by GTB and GRE. And more studies are needed to check the real glare output and the potential of today’s headlamp systems to reduce glare and raise traffic safety.

At Magdeburg-Stendal University of Applied Sciences, I'm teaching different modules to train junior and senior staff. It starts with the definition of the requirements of a lighting system. Next, the students learn how to realize the optical system using one of our 30 LucidShape CAA licences, ending up with the verification of a first prototype. Here, we are using our LMK6-Color luminance camera from TechnoTeam with indirect measurement methods. As a medium-term goal we are planning to implement a robo-photogoniometer.

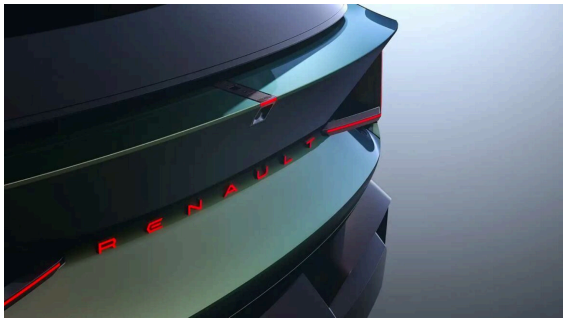
Additionally, my team and I are working on the ViSUS PRO project, founded by the Stiftung Innovation in der Hochschullehre (StIL). We are focused on setting up a virtual assessment platform with mixed reality to evaluate innovative interior as well as exterior lighting systems virtually, reducing slow and costly physical prototypes. Glare is always in our minds, and the first use case is the verification of an adaptive glare-free low-beam. More details will be presented in my lecture at VISION 2024 next week, with a demonstrator. For further information about the ViSUS PRO project, you are warmly welcome to join in on our online ViSUS 2024 event on 24 October. Looking forward to meeting you soon!

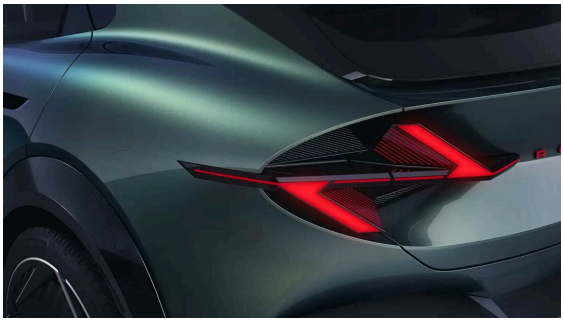


Renault Embleme Concept, R4 at Paris Motorshow

LIGHTING NEWS

Renault have just revealed the Embleme concept, which will make its debut next week at the Paris Motorshow. It has an interesting lamp design with totally new signature, including front and rear lit logos. After the R5 and R4, Renault style is continuing to propose rear lamp designs without any outer cover lens.





This car is built on the new AmpR Medium platform, which will be the basis of a number of future production models.

The CHMSL's size is much smaller than 29 cm^2, which—assuming it transfers as-is to a production car, could be a clue: no US version?

Renault also shared pictures of the new R4 just before the official reveal next week in Paris. It's got an illuminated front panel, including the logo, and its rear lamp with no cover lens looks production-ready. We're Looking forward to discovering the car next week, and to know more about the lamp details in Francois Bedu's presentation during the **VISION congress on 16 October at 11:15am CET**.

91st UNECE GRE Session

LIGHTING NEWS

The Working Party on Lighting and Light-Signalling (GRE) is the subsidiary body of the World Forum for Harmonization of Vehicle Regulations (WP.29) that prepares regulatory proposals on active safety, specifically regarding vehicle lighting and signalling for WP.29. This group of experts conducts research, analysis, and spirited discussion to develop consensus lighting requirements for vehicles.

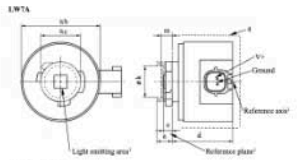
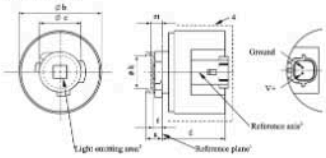
GRE convenes officially twice a year and entrusts informal groups with specific problems that need to be solved urgently or require special expertise. More than 80 experts participate at the sessions, the next one of which will be held at the usual venue—the UN Palais des Nations in Geneva, on 22-25 October.

Agenda:

The provisional agenda of the session is available online, as are the formal and informal documents/

Topics to be addressed:

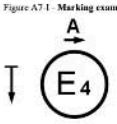
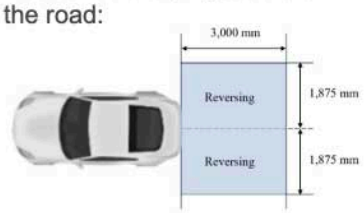
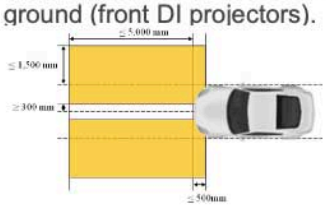
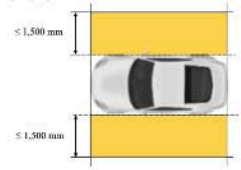
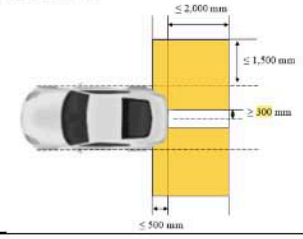
- Simplification of lighting and signalling UN Regulations: the relevant working group (IWG SLR) will present a progress report.
- Light Sources (UN Regulations on Light Sources and the Consolidated Resolution on the Common Specification of Light Source Categories)

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2024/14	GTB	RE 5	Introduction of 2 new Standard LED light sources: LW7A and LW7B. White light. Reference luminous flux: 750Lm. For Daytime Running Lamp application. "A": "Elbow" connector. "B": Straight connector.	LW7A:  LW7B: 

- Installation of Lighting and Light-Signalling Devices (UN Regulation No. 48):

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2024/13	Germany	R48 S8 & 9	No luminous logos allowed in a Road illumination device.	*"Road illumination devices shall not incorporate a logo."* in §5.5.5.
2024/12	France	R48 S8 & 9	Introduction of "Work Lamp. And its technical characteristics (Installation rules and activation).	New lighting function in R48.
2024/15	GTB	R48 S6, 7, 8 & 9.	Allow the projection of a pattern for predicted trajectory. The text has been modified considering the concerns expressed by Japan during the 88th session.	 **This figure is showing an example of the basic quadrilateral shape of the Driver Assistance Projection for predicted trajectory, as seen from the driver's perspective of a car in straight forward motion. The dashed lines are not part of the projection. They are a representation of the lines delineating the lane on which the vehicle is travelling, and only added to clarify the image and lateral boundaries of the predicted trajectory projection.**
GRE-89-24	France	X	X	Concern expressed by France about the colour perceived by the other road users, which can be different from the measurements. 
GRE-90-22	OICA	R48	Remove the current restriction in paragraph 6.12.1. of R48 that prohibits the fitment of parking lamps to vehicles which exceed 2 m in width.	6.12.1. Presence On motor vehicles not exceeding 6 m in length and not exceeding 2 m in width, optional. On all other vehicles, prohibited. An updated proposal is expected from OICA.

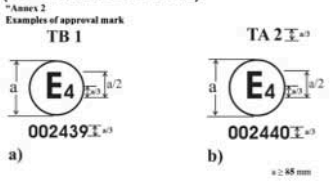
- Light-Signalling Devices (UN Regulation No. 148):

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2024/17	GTB	R148 S01	Editorial modification dealing with the approval marking. (§3.3.1.2 and annex 7 Part1).	No technical impact. Figure A7-1 - Marking example 1  148R01 0221
2024/20	GTB	R148 S01 R48 S6,7, 8 & 9.	Introduction of the reversing projector. Installation requirements in R48 (position of the projection on the ground, installation rules of the "reversing projector' on the vehicle. In R148, technical requirements of the device.	Position of the projections on the road:  "*Reversing projection may flash and/or vary according to the steering wheel angle and/or the speed of the vehicle and/or the proximity to an obstacle.*"
2024/21	GTB	R148 S01 R48 S6,7, 8 & 9.	Introduction of the Direction indicator projectors. Installation requirements in R48 (position of the projections on the ground, installation rules of the "Direction indicator projectors" on the vehicle. In R148, technical requirements of the device.	Positions of projections on the ground (front DI projectors).  Side DI:  Rear DI: 

- Road Illumination Devices (UN Regulation No. 149):

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2024/18	GTB	R149 S00 & 01	Editorial modifications which rectify the inconsistency between R149 (00 and 01 series) and the frozen R 98, 112 and 123) for the mechanical deterioration test.	It does not change any technical requirement
2024/19	GTB	R149 S01	Corrections in tables 25 & 26: Line BLL / Point BLL for Class V.	

- Other UN Regulations:

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2024/16	GTB	R65 S13	Editorial modifications in §5.1, 5.8 & 5.9.	Size of approval markings same as the ones in the other lighting/signalling regulations. (a= 5mm io 8mm) 

- Pending Amendment Proposals:

Document:	Proposed by:	Regulation:	Proposal:	Comments:
GRE-88-17	OICA	R 48 S3, 4, 5, 6, 7 & 8	Align the requirement for the visibility of red/white light towards the front/rear in R48 S3 to 8 with those of R148 S01and 149 S01.	
2023/13	IWG-SLR	R 48 S6, 7, 8, 9	Editorial modifications of §6.5. 8 to consider the direction indicator described in R148 S01.	No technical impact.
2024/3	GTB	R48 S 6, 7, 8, 9	Editorial modifications to align the requirements in R48 with the requirements in R 149 S01	No technical impact.
2024/4	GTB	R48 S6, 7, 8, 9	The passing-beam vertical inclination defined in R48 S09 for M2G, M3G, N2G and N3G (off-road) vehicles defined in R48 S09 are extended to R48 S06, 07 and 08.	Impact on vertical adjustment of passing beam for off-road vehicles.
GRE-90-10	GTB	R48 S9	Editorial modification of §6.1.9.1 (Driving beam) & "6.22.9.5 (AFS).	No technical impact
GRE 90-36	Japan	R10 S6	Editorial modification in R10 S6.	No technical impact

- Glare Issues—study proposed by FIA:

Document:	Proposed by:	Comments:
GRE 90-20 & GRE 90-40	F.I.A.	**Study and European survey on glare in road traffic** New technology, especially LED lighting, is making the road in front of the car increasingly bright. It has adverse effects and there are many complaints about this. • The majority of drivers surveyed feel dazzled in road traffic. • Over ¾ of all respondents favour amendments to the legal regulations to reduce glare in traffic

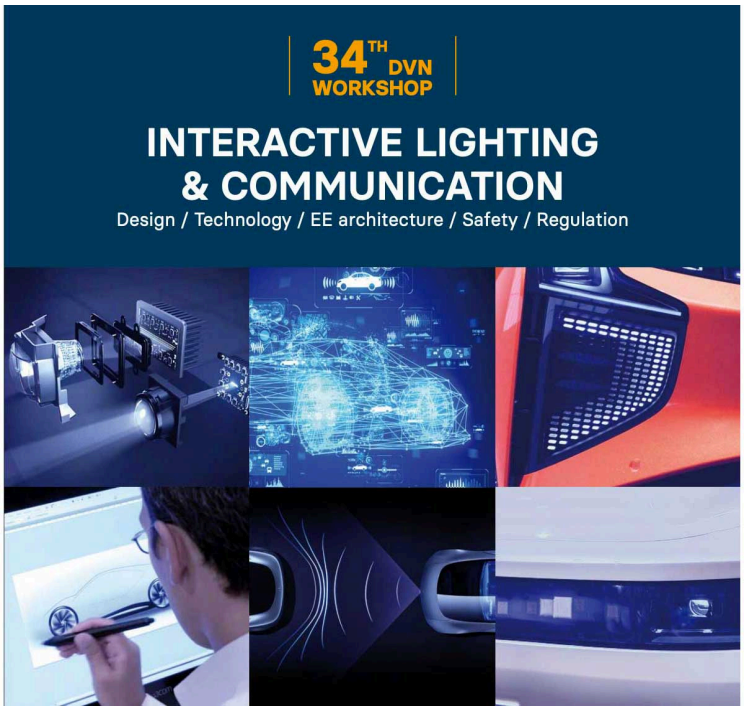
- Other business:
  Development of the International Whole Vehicle Type Approval (IWVTA): GRE expects information on this topic.
  Amendments to the Convention on Road Traffic (Vienna, 1968): GRE will be informed about considerations of the Global Forum for Road Traffic Safety (WP.1).

- Direction of Future Work of GRE:
  Report of the activities of the Task Force on Autonomous Vehicle Signalling Requirements (TF AVSR) is expected.

Document:	Proposed by:	Regulation:	Proposal:	Comments:
2023/9 Rev3	IWG AVSR	R48	Drafting of a new series. It introduces vehicles with an Automated Driving System (ADS).	

DVN Shanghai Workshop: Early Docket

LIGHTING NEWS



Save the date: 4-5 December in Jiading, China

Our next Shanghai DVN lighting workshop will include three sessions about the challenges for the vehicle lighting industry in China:

- MiniLED and alternatives for displays and V2X communication: user experience (UX), light sources, and EE architecture to support
- ADB, ratings, road projections, and signalling projection technology
- Lighting as a design element: trends and innovations

There will be three panel discussions:

- Regulation status in Europe and China
- Designer discussion about new design trends and importance of UX and HMI for lighting systems
- Tier-1 leader round table to talk about the stakes for the lighting ecosystem—speed, cost, vertical integration, competition, consolidation, expansion, and more.

This Shanghai workshop will bring together more than 400 participants from all over the world—managers experts, and decision makers—for the first time in China.

Automakers and tier-1 suppliers will also present democars and new vehicles, such as the Lynk & Co Z10 with RGB LEDs.

Day 1: Wednesday, December 4, 2024

Registration and Coffee — 08:00

Opening — 10:00

Welcome and Keynote speech — 10:10

Session 1: MiniLEDs and Alternatives for Displays and V2X Communication — 10:50

Zeekr · "*How stargate has revolutionized front lighting design*"
Markus Quarta, Zeekr Design Head of Technology & Innovation

Forvia Hella · "*Shining Bright: how innovations in automotive lighting are transforming mobility experiences*"
Fang Min, Hella Nanjing Director of Technical Centre

Lumissil · "*New Generation of Intelligent Interactive Light Driver Solution*"
Eben Qiu, Application Senior Manager

Refond · "*Application and Innovation of Mini LED Technology in the Automotive Field*"
Han Tingting, Director of MINI Display Product Line

Ansys · "*Ansys optical solution for intelligent display in Automotive*"
Tong Xing

Brightek · "*Machine-Learning Optimized Tuning Solution for IC-LED based Ambient Lighting Applications*"
Kerwin Cheng, R&D Product Manager

Lynk & Co Design · "*Z10, new design language and interaction with environment*"
Alsed Briscoe, Exterior Chief Designer & Louise Kivi, HMI Project Manager & Chief Designer

Q&A

Lunch — 12:30

Session 2: ADB, Rating, Road Projection and Signalling Projection Technology — 14:30

ZKW · "*Way forward bringing µLED to the next level*"
Henry Song, Concept Manager & Innovation Promotion Manager

APT Electronics · "*Application of Automotive High-power LED Innovation and Products*"
Zhaoming Zeng, Vice President

LMT & Technoteam · "*Advanced Analysis of ADB Systems and Symbol Projection*"
Bob Liu

NXP · "*Latest technology developments in the area of ADB*"
Prem Sharma

Mind · "*e-HMI: principles of the autonomous driving & the road obstacle approach*"
Allen Zhu

S&P Mobility · "*China Automotive Lighting Market and Projection Lighting Overview*"
Laura Dong, Senior Research Analyst

Catarc · "*Status about C-NCAP 2024*"
Zhao Zhun

Q&A

Coffee Break — 16:15

Tier-1 Leader Round Table — 17:15

Marelli Automotive Lighting · Peter CAO, General Manager AL&S APAC

Hasco Vision · Ao Jinlong, Deputy General Manager & CTO

Liaowang · Gu Dan, Vice General Manager & Director of Liaowang Shanghai Research Institute

Mind · Hossein Nafari, Lighting Vice President

Anrui · Eric Sun, General Manager

Xingyu · Lin Shudong, Deputy General Manager & Director of Xingyu Research Laboratory

Cocktail — 18:00

Dinner — 19:00

Day 2 : Thursday, December 5, 2024

Keynote 10:00

Fudan University · "*IFAL summary and status about lighting research in China*"
Professor Yandan Lin

Shanghai VW · "*Research on fog test method of automobile headlamp based on vehicle test condition*"
Zheng Zhijun

Regulation Session: Chaired by Davide Puglisi, GTB Secretary 10:30

FAW-VW · "*Regulations Expectation from OEM Perspective*"
Lili Yang

Catarc · "*Status about GB xxx RID*"
He Yuntang

Xingyu · "*Status about GB xxx LSD*"
Zhu Caiping

SMVIC · "*Status about GB4785 evolution*"
Bu Weili

GTB · "*Status about GTB, SLR and UNECE Regulation*"
Davide Puglisi, General Secretary

Panel Discussion

Lunch 12:00

Session 3: Lighting as a design element: trend and innovation 14:00

Patac · "*Optical Simulation of animation*"
Zhu Zixiang, Senior Advanced Lighting System Engineer

Less · "*Enabling Ultra-Thin Exterior Lighting Functions with High-Intensity Nano-Active Laser Fiber Technology*"
Yann Tissot, CEO

Lumileds · "*Car Body Lighting: new trends and solution proposals*"
Keanu Ma, Director APAC Technical Competence Center, Lumileds China

Docter Optics · "*Efficiency improvement for Slim Lens Designs*"
Markus Winkler, CTO

Foculight · "*Full MLA headlight with ADB*"
Olga Fryckova, Focuslight Automotive Product Line Manager

Delo · "*Innovating Headlamp Manufacturing: Adhesives for Precision Optics and Active Alignment*"
Christoph Appel, Product Manager LED

BrightView Technologies · "*Micro Lens Array (MLA) Thin Films for Automotive Lighting and Other Applications*"
Dr. Michael Murphy

Synopsys · "*Synopsys Optical Solutions portfolio for developing complex illumination systems for exterior and interior automotive lighting applications*"
Dr. Tobias Schmid, Principal of Optical Solutions Technical Product Management

Mind · "*Car Style in China / worldwide = Affordable innovation - Cost reduction of Headlamp from a styling perspective*"
Dai Jie

Design Panel Discussion 16:30

Ford
IM Motors: Li Shuo
Dongfeng
Geely
Lynk & Co Design: Alsed Briscoe
Zeekr

Closing 17:15

Driver Assistance News

UN Reg on L2 DCAS Enters Force

DRIVER ASSISTANCE NEWS

A new UN Regulation on driver control assistance systems (DCAS), adopted last March, has now entered into force.

Regulation № 171 defines DCAS as systems which help the driver control the longitudinal and lateral motion of the vehicle on a sustained basis, while not taking over the entire driving task. DCAS are categorized as L^2 automated driving systems (such as Tesla's misnamed "Autopilot" and "Full Self-Driving"); the human driver retains responsibility for the control of the vehicle, and so must continually monitor the surroundings as well as the performance of the vehicle and system, and intervene as needed.

Regulation 171, which entered into force on 30 September, specifies safety and performance requirements for DCAS. To ensure that drivers remain vigilant and ready, the regulation requires effective warning strategies if a lack of driver engagement is detected.

To address drivers' potential overreliance on some assistance systems, it also requires vehicle manufacturers to proactively communicate to users via all available means, including online, in advertising and at dealerships when purchasing a vehicle, about the limitations of DCAS and drivers' responsibility when using the systems. Richard Damm, Chair of the WP.29 Working Party on Automated/Autonomous and Connected Vehicles (GRVA), said, "This new UN Regulation on DCAS is an important step for road traffic safety and the deployment of safe technologies assisting drivers. It ensures significantly improved driver monitoring in the use of assistance systems compared to current regulatory provisions, enhancing the involvement of the driver in the driving task. It will thus pave the way towards higher automation levels in the future".

General News

Adnoc Nears Covestro Takeover

GENERAL NEWS

Adnoc (the Abu Dhabi National Oil Company) are nearing a €14.4-bn agreement to take over German chemicals group Covestro, setting up the Gulf state-owned energy producer to expand their overseas holdings.

Covestro have agreed to enter 'concrete negotiations' after the UAE's Adnoc boosted their proposal to €62 per share, versus the €60 they'd previously offered. The two sides have agreed to conduct confirmatory due diligence, and Covestro said they would cancel their capital markets day.

Covestro CEO Dr. Markus Steilemann said, "We are convinced that the agreement reached today with Adnoc International is in the best interest of Covestro, our employees, our shareholders, and all other stakeholders. With Adnoc International's support, we will have an even stronger foundation for sustainable growth in highly attractive sectors and can make an even greater contribution to the green transformation. We regard Adnoc International as a financially strong and long-term oriented partner with whom we will further drive our successful "Sustainable Future" strategy in all market conditions. Our complementary growth strategies, shared commitment to advanced technologies, innovation and sustainability are key cornerstones of our partnership."

Adnoc Managing Director and Group CEO Dr. Sultan Ahmed Al Jaber said, "Covestro brings unmatched expertise in high-tech specialty chemicals and materials, using advanced technologies including AI. This strategic partnership is a natural fit and aligns seamlessly with Adnoc’s ongoing smart growth and future proofing strategy and our vision to become a top-5 global chemicals company. Our aligned strategies uniquely position us to meet the growing global demand for energy and chemical products, while accelerating the transition to a circular economy."

DVN Dinner With British Lighting Community

GENERAL NEWS

By Paul-Henri Matha

We were pleased last week to gather members of the British lighting community for a dinner just after the SMMT (Society of Motor Manufacturers and Traders) GRE-preparatory meeting.

Great Britain has a long history with cars and especially luxury and sport cars with well-known manufacturers, and lamps can be seen as unique jewels with sometimes very low volume productions. Some UK lighting suppliers are especially dedicated to producing this sort of lamp. The British lighting community is quite strong and important, with a lot of interconnection among automakers and lamp makers, and the dinner was a really nice moment to discuss lighting, innovation, testing, and regulation.

John Veasey from JLR was the longtime chair of the GTB lighting installation working group; Alexander Cosic, also from JLR, is the current chair. That group leads on UN R48 matters. Marc Grainger from SMMT is the OICA (Organisation internationale des constructeurs automobiles) GRE chairman; he represents automakers at GRE in Geneva.